

IN THE SPECIFICATION

Please amend the paragraph beginning at page 6, line 11 as follows:

ISDN time compression ~~multiplexing~~ multiplexing (TCM) which is referred to as ISDN ping-pong transmission separates transmit and receive intervals in time-shared fashion (the total of one transmit interval and one receive interval is 2.5 ms) and makes the transmit and receive timings the same for all neighboring devices. With ISDN ping-pong transmission, 2B+D 144-kbps transmit data is demarcated every 2.5 ms, compressed to 320 kbps by rate conversion and transmitted in the transmit interval. As a consequence, the frequency band of ISDN ping-pong transmission overlaps the frequency band of ADSL (or of G.dmt), as shown in Fig. 31. Already existing telephone lines have a design optimized to a frequency band of about 200 Hz – 3.4 kHz, which is the frequency band of the human voice. If ADSL and ISDN high-frequency signals are passed through such telephone lines, the fact that the lines are bundled together as shown in Fig. 32 allows the ISDN signal to leak into the ADSL telephone line and act as noise that interferes with the ADSL communication. Such noise is crosstalk noise. The ADSL transmission rate is limited by the level of this crosstalk noise.

Please amend the paragraph beginning at page 9, line 1 as follows:

A “sliding-window method” has been proposed in the specification of Japanese Patent Application 10-144913 (issuing as Japanese Patent No. 3,480,313) for the purpose of providing a digital subscriber line transmission system that is capable of transmitting an ADSL signal satisfactorily in an environment where there is the above-described crosstalk from an ISDN ping-

pong transmission. The sliding-window method is such that in the case of the downstream direction in which an ADSL signal is transmitted from an ADSL unit (ATU-C) on the office side to an ADSL unit (ATU-R) on the subscriber side, the state of the ADSL signal transmitted by the ADSL unit (ATU-C) on the office side in an environment where there is crosstalk from an ISDN ping-pong transmission is decided as set forth below. The method includes dual bitmap and FEXT bitmap methods.

Please amend the paragraph beginning at page 10, line 27 as follows:

The bitmap ~~which~~ which shows ~~The~~ the bit count assigned to each carrier is decided on the receiving side. That is, the number of assigned bits for upstream signals is decided on the office side and the number of assigned bits for downstream signals is decided on the subscriber side. When training is performed, the ADSL units on the office and subscriber side decide the bitmaps in accordance with a protocol referred to as “B & G (bit & gain)”.

Please amend the paragraph beginning at page 47, line 26 as follows:

The sequencer 310 generates various control signals in such a manner that the transmit symbol sequence 700 for normal communication will be transmitted within the transmit interval of the ISDN ping-pong transmission. More specifically, at start-up, the sequencer 310 exercises control to switch from the training state to the normal communication state after ~~at elapse of~~ a predetermined period of time following start-up has elapsed. As a result, the selector 320 selects and inputs the transmit data ~~from~~ from the encoder 20 to the IFFT circuit 30. In addition, the selector 320 selects the pilot-tone signal PLT from the training-signal generating circuit 330 and inputs this signal to the #64 terminal of the IFFT circuit 30.